## **Certificate of Mailing**

certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient ENT & Toostage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: January 22, 2004

Como 1. mulian

Sonia V. McVean

•)

**PATENT** 50626.53

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Chun Ho FAN et al.

Serial No.: 10/643,961

Filing Date: August 20, 2003

For: IMPROVED BALL GRID ARRAY PACKAGE AND PROCESS FOR MANUFACTURING SAME Art Unit: 2812

Examiner: Not Assigned

## COMMENTARY RE INFORMATION DISCLOSURE STATEMENT

Mail Stop DD **Commissioner for Patents** P.O. Box 1450 **Alexandria, VA 22313-1450** 

Dear Sir:

In accordance with 37 CFR §1.56, and in recognition of their duty to disclose to the United States Patent and Trademark Office relevant information known to be material to patentability, Applicants herewith submit a copy of the prior art 1-20 listed on the attached Information Disclosure Statement (Form PTO-1449). Applicants did not submit a copy of the prior art 21-24 as they are U.S. Applications currently pending. The statement is not a representation that all of the information cited is necessarily effective as prior art against the application.

U.S. Application No. 10/643,961 January 22, 2004 Page 2 of 2

Applicants respectfully request that the disclosed reference be made of record in the subject application.

Respectfully submitted,

Date: January 22, 2004

1

Attorneys for Applicant(s)

Joseph R. Keating Registration No. 37,368

Christopher A. Bennett Registration No. 46,710

**KEATING & BENNETT, LLP** 

10400 Eaton Place, Suite 312 Fairfax, Virginia 22030

Telephone: (703) 385-5200 Facsimile: (703) 385-5080

JAN 2 6 2004

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known			
Application Number	10/643,961		
Filing Date	August 20, 2003		
First Named Inventor	Chun Ho FAN	·	
Art Unit	2812	-	
Examiner Name			
Attorney Docket Number	50626.53		

			U.S. PATE	NT DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2(if known)</sup>	Publication Date MM -YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<del></del>	1	US-2001/0015492 A1	08/2001	Akram et al.	
	2	US 2002/0006718 A1	01/2002	Distefano	
<del>,</del>	3	US-2002/0185734 A1	12/2002	Zhao et al.	
	4	2003/0034569 A1	02/2003	Caletka et al.	
	5	5,172,213	12/1992	Zimmerman	
	6	5,311,060	05/1994	Rostoker et al.	
• • •	7	5,339,216	08/1994	Lin et al.	
	8	5,493,153	02/1996	Arikawa et al.	
	9	5,610,442	03/1997	Schneider et al.	
	10	5,639,694	06/1997	Diffenderfer et al.	
• •	11	5,650,663	07/1997	Parthasarathi	
	12	5,679,978	10/1997	Kawahara et al.	
	13	5,705,851	01/1998	Mostafazadeh et al.	
- 1 AU-1	14	5,986,885	11/1999	Wyland	
	15	6,236,568	05/2001	Lai et al.	
	16	6,251,706	06/2001	Paniccia	-
	17	6,323,066	11/2001	Lai et al.	
	18	6,414,385	07/2002	Huang et al.	
	19	6,462,405	10/2002	Lai et al.	
	20	6,525,421	10/2002	Chia et al.	
	1		1	.1	

	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> -Number-Kind Code <sup>5</sup> (if known)	Publication Date MM -YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Le

Examiner	Date	
Signature	Considered	

<sup>\*</sup>Examiner: Initial if reference considered, whether of not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant.

¹ Applicant unique citation designation number (optional). ²See Kind Codes of USPTO Patent documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. ³ Enter Office that issued the document by the two-letter code (WIPO Strandard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Abstract is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14.

JAN 2 6 2004 2

Substitute for form 1449/PT0

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

(USC as many shoots as necessary)					
Sheet	2	of	2		

	Complete if Known	
Application Number	10/643,961	<del></del>
Filing Date	August 20, 2003	
First Named Inventor	Chun Ho FAN	
Art Unit	2812	
Examiner Name		
Attorney Docket Number	50626.53	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title Of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
¥ .	21	U.S. Patent Application Serial No. 10/647,696, Mohan KIRLOSKAR et al., "IMPROVED BALL GRID ARRAY PACKAGE AND PROCESS FOR MANUFACTURING SAME", filing date: August 25, 2003.	
3	22	U.S. Patent Application Serial No. 10/323,657, Chun Ho FAN et al., "PROCESS FOR MANUFACTURING BALL GRID ARRAY PACKAGE", filing date: December 20, 2002.	
	23	U.S. Patent Application Serial No. 10/372,421, Joseph Andrew MARTIN et al., "IMPROVED BALL GRID ARRAY PACKAGE", filing date: February 24, 2003.	
	24	U.S. Patent Application Serial No. 10/197,832, Joseph Andrew Martin et al., "IMPROVED BALL GRID ARRAY PACKAGE", filing date July 19, 2002.	
	,		

Examiner	Date	
Signature	Considered	

<sup>\*</sup>Examiner: Initial if reference considered, whether of not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14.